



# Anti-PI 3 Kinase p85 beta antibody ab131067

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## Overview

<b>Product name</b>	Anti-PI 3 Kinase p85 beta antibody
<b>Description</b>	Rabbit polyclonal to PI 3 Kinase p85 beta
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide corresponding to Human PI 3 Kinase p85 beta aa 447-461 (internal sequence). Sequence: KVYHQYQDKSREYD <div>  <a href="#">Run BLAST with</a>  <a href="#">Run BLAST with</a> </div>
<b>Positive control</b>	WB: Rat testis tissue lysate and HeLa and 293T whole cell lysates. IHC-P: Human mammary cancer tissue.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservatives: 0.025% Thimerosal (merthiolate), 0.025% Sodium azide Constituents: 2.5% BSA, 0.1% Dibasic monohydrogen sodium phosphate, 0.45% Sodium chloride
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab131067 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 0.1 - 0.5 µg/ml. Detects a band of approximately 81 kDa (predicted molecular weight: 81 kDa).
IHC-P		Use a concentration of 0.5 - 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

## Target

### Function

Regulatory subunit of phosphoinositide-3-kinase (PI3K), a kinase that phosphorylates PtdIns(4,5)P<sub>2</sub> (Phosphatidylinositol 4,5-bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP<sub>3</sub>). PIP<sub>3</sub> plays a key role by recruiting PH domain-containing proteins to the membrane, including AKT1 and PDK1, activating signaling cascades involved in cell growth, survival, proliferation, motility and morphology. Binds to activated (phosphorylated) protein-tyrosine kinases, through its SH2 domain, and acts as an adapter, mediating the association of the p110 catalytic unit to the plasma membrane. Indirectly regulates autophagy (PubMed:23604317). Promotes nuclear translocation of XBP1 isoform 2 in a ER stress- and/or insulin-dependent manner during metabolic overloading in the liver and hence plays a role in glucose tolerance improvement.

### Involvement in disease

Megalencephaly-polymicrogyria-polydactyly-hydrocephalus syndrome 1

### Sequence similarities

Belongs to the PI3K p85 subunit family.  
Contains 1 Rho-GAP domain.  
Contains 2 SH2 domains.  
Contains 1 SH3 domain.

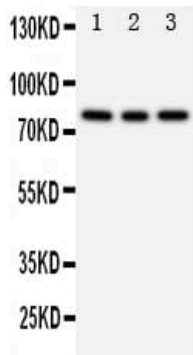
### Domain

The SH2 2 domain is required for interaction with FBXL2 and PTPN13.

### Post-translational modifications

Phosphorylated in response to signaling from activated receptor-type protein kinases (PubMed:19690332, PubMed:20068231). Dephosphorylated by PTPRJ (PubMed:18348712). Dephosphorylated at Tyr-655 by PTPN13. Phosphorylation of Tyr-655 impairs while its dephosphorylation promotes interaction with FBXL2 and SCF(FBXL2)-mediated polyubiquitination (PubMed:23604317). Ubiquitinated. Polyubiquitination by the SCF(FBXL2) complex probably promotes proteasomal degradation of PIK3R2.

## Images



Western blot - Anti-PI 3 Kinase p85 beta antibody (ab131067)

**All lanes :** Anti-PI 3 Kinase p85 beta antibody (ab131067) at 0.5 µg/ml

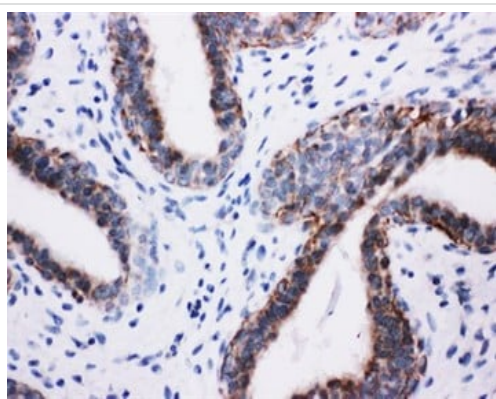
**Lane 1 :** Rat testis tissue lysate at 50 µg

**Lane 2 :** 293T whole cell lysate at 40 µg

**Lane 3 :** HeLa whole cell lysate at 40 µg

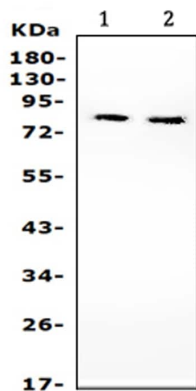
**Predicted band size:** 81 kDa

**Observed band size:** 81 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PI 3 Kinase p85 beta antibody (ab131067)

Immunohistochemical analysis of paraffin embedded Human Mammary Cancer Tissue labelled with ab131067 PI 3 Kinase p85 beta antibody at 1 µg/ml.



Western blot - Anti-PI 3 Kinase p85 beta antibody (ab131067)

**All lanes :** Anti-PI 3 Kinase p85 beta antibody (ab131067) at 0.5 µg/ml

**Lane 1 :** mouse liver tissue lysates

**Lane 2 :** mouse brain tissue lysates

Lysates/proteins at 50 µg per lane.

#### Secondary

**All lanes :** goat anti-rabbit IgG-HRP at 1/10000 dilution

**Predicted band size:** 81 kDa

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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